

# RAINFOREST

## subtropical

### VEGETATION TYPE 29c

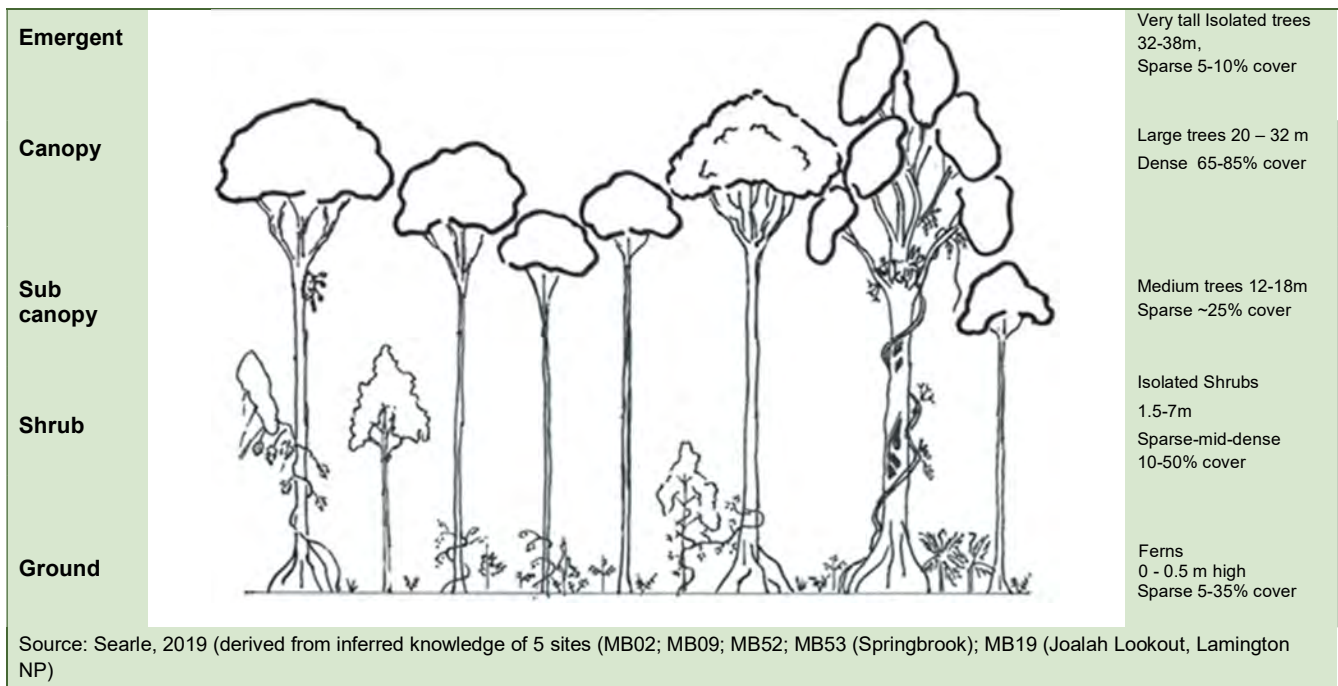
Regional Ecosystem: 12.8.5

Vine Forest on Cainozoic Igneous Rocks  
(usually >600 m altitude)



### COMMUNITY STRUCTURE

Vegetation type (VT) 29c consists of a dense canopy (up to 85% cover shading understorey plants) from 20-32m high, with isolated emergent figs (*Ficus watkinsiana*) to 38m high. Characteristic canopy species include Black Booyong (*Argyrodendron actinophyllum*), Maiden's Blush (*Sloanea australis*), Red Apple (*Acmena ingens*), Doughwood (*Acronychia octandra*), Soft Corkwood (*Ackama paniculosa*), Purple Cherry (*Syzygium crebrinerve*) and Red Carabeen (*Karrabina benthamiana*), although a diversity of other canopy and smaller trees are also present.



The shrub and lower tree layers are sparse to mid-dense and comprise a diverse mix of rainforest plants, whilst the ground cover is sparse and comprised mainly of ferns (particularly *Lastreopsis spp.*). Vines (particularly Lawyer Vine *Calamus muelleri*) and epiphytes are common and conspicuous.

## Characteristic plant species

Approximately **160 native plants** have been recorded for this vegetation type. Characteristic plant species for this vegetation type are listed below. Dominant (most numerous) species are shaded.



Indicates species is a preferred koala food tree\*



Indicates species is a Glossy Black-Cockatoo feed tree species



Indicates species is a City-wide significant species

\* It is noted that in addition to preferred food trees, koalas utilise a range of eucalypt and non-eucalypt tree species for supplemental feeding and other uses such as shelter. These other species are also important and necessary features of koala habitat.

### EMERGENT

Tallest trees, visible above the canopy



**Strangler Fig**  
*Ficus watkinsiana*

### CANOPY

Upper layer of vegetation exposed to sunlight which creates a canopy that shades lower layers



**Black Booyong**  
*Argyrodendron actinophyllum*



**Maiden's Blush**  
*Sloanea australis subsp. australis*



**Red Apple**  
*Acmena ingens*



**Doughwood**  
*Acronychia octandra*

# CANOPY

Upper layer of vegetation exposed to sunlight which creates a canopy that shades lower layers



**Purple Cherry**  
*Syzygium crebrinerve*



**Soft Corkwood**  
*Ackama paniculosa*  
(formerly *Caldcluvia paniculosa*)



**Red Carrabeen**  
*Karrabina benthamiana*  
(formerly *Geissois benthamii*)



**Sassafras**  
*Doryphora sassafras*



**White Booyong**  
*Argyrodendron trifoliolatum*



**Prickly Ash**  
*Orites excelsa*



**Pigeonberry Ash**  
*Cryptocarya erythroxylon*



**Rosewood**  
*Dysoxylum fraserianum*



**Corduroy Tree**  
*Sarcopteryx stipata*



**Yellow Carrabeen**  
*Sloanea woollsii*



**Scentless Rosewood**  
*Synoum glandulosum*

## SUB-CANOPY

Tree layer below canopy



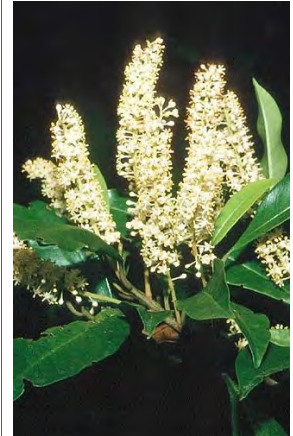
**Red-flowered Sassafras**  
*Daphnandra tenuipes*



**Flintwood**  
*Scolopia braunii*



**Maiden's Blush**  
*Sloanea australis subsp. australis*



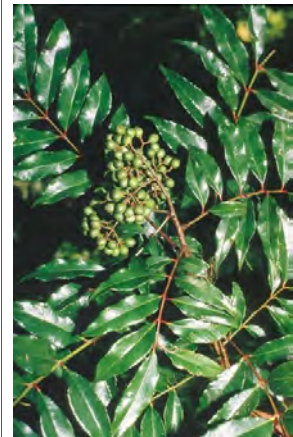
**Grey Possumwood**  
*Quintinia verdonii*



**Scrub Bloodwood**  
*Baloghia inophylla*



**Muskwood**  
*Alangium villosum subsp. polyosmoides*



**Thorny Yellowwood**  
*Zanthoxylum brachyacanthum*

# SHRUB LAYER

Middle layer of vegetation usually made up of small trees and woody shrubs



**Prickly Tree Fern**  
*Cyathea leichhardtiana*



**Walking Stick Palm**  
*Linospadix monostachya*



**Ardisia**  
*Ardisia bakeri*



**Native Caper**  
*Capparis arborea*



**Smooth Scrub Turpentine**  
*Rhodamnia maideniana*



**Wing-leaved Tulip**  
*Harpullia alata*



**Smooth Wilkiea**  
*Wilkiea austroqueenslandica*



**Veiny Wilkiea**  
*Wilkiea huegeliana*



**Small Psychotria**  
*Psychotria simmondsiana*



**Honeysuckle Bush/ Spice Bush**  
*Triunia youngiana*

## GROUND LAYER

Lowest layer of vegetation. Plant types can include grasses; graminoids (non-woody plants with a grass-like morphology); ferns; and forbs (non-woody, broad-leaved, flowering plants).



**Glossy Shield Fern**  
*Lastreopsis marginans*  
FERN



**Trim Shield Fern**  
*Lastreopsis decomposita*  
FERN



**Mountain Shield Fern**  
*Lastreopsis silvestris*  
FERN



**Yellow-fruited Mat Rush**  
*Lomandra spicata*  
GRAMINOID



**Sickie Fern**  
*Pellaea falcata*  
FERN

## VINES AND CLIMBERS

Plant species which grow from the ground but use trees or other features for support and often extend upwards into the canopy



**Wait-a-while/ Lawyer Vine**  
*Calamus muelleri*



**Pearl Vine**  
*Sarcopetalum harveyanum*



**Carronia**  
*Carronia multiseptata*



**Climbing Panax**  
*Cephalalaria cephalobotrys*



**Embelia**  
*Embelia australiana*



**Anchor Vine**  
*Palmeria scandens*

# VINES AND CLIMBERS

Plant species which grow from the ground but use trees or other features for support and often extend upwards into the canopy



**Furry Silkpod**  
*Parsonsia fulva*



**Prickly Supplejack**  
*Ripogonum discolor*



**Mountain Aristilochia**  
*Pararistolochia laheyana*



**Pothos**  
*Pothos longipes*



**Hairy Supplejack**  
*Ripogonum elseyanum*



**Barbed-wire Vine**  
*Smilax australis*



**Southern Melodinus**  
*Melodinus australis*



**Giant Blood Vine**  
*Austrosteenisia glabristyla*



**Climbing Fishbone Fern**  
*Arthropteris tenella*



**Small Climbing Fishbone Fern**  
*Arthropteris beckleri*

## EPIPHYTES

Plant species which grow on the surface of other plants



**Bird's Nest Fern**

*Asplenium australasicum*



**Mare's Tail Fern**

*Asplenium polyodon*



**Elkhorn**

*Platycterium bifurcatum*

## City-wide significant plant species



The City of Gold Coast recognises species which are locally significant as City-wide significant (CWS) species. These species are important because they may be threatened, restricted to the Gold Coast, or at the edge of their geographic range. In addition to characteristic species identified above as CWS species, the following CWS plant species may also be present in this vegetation type.



**Corky Acronychia**

*Acronychia suberosa*



**Rusty Rose Walnut**

*Endiandra hayesii*



**Long-leaved Sago Flower**

*Ozothamnus vagans*



**Slender Silkpod**

*Parsonsia tenuis*

- **Pink Cherry** *Austrobuxus swainii*
- **Finger Lime** *Citrus australasica*
- **Thick-leaved Laurel** *Cryptocarya meisneriana*
- **Narrow-leaved Tuckeroo** *Cupaniopsis flagelliformis* var. *australis*
- **Long-leaved Tuckeroo** *Cupaniopsis newmanii*
- **Dorrigo Maple** *Endiandra crassiflora*
- **Green-leaved Rose Walnut** *Endiandra muelleri* subsp. *bracteata*
- **Rusty Helicia** *Helicia ferruginea*
- **Fine-leaved Tuckeroo** *Lepiderema pulchella*
- **Large-leaved Wonga Vine** *Pandorea baileyana*
- **Small-leaved Hazelwood** *Symplocos baeuerlenii*

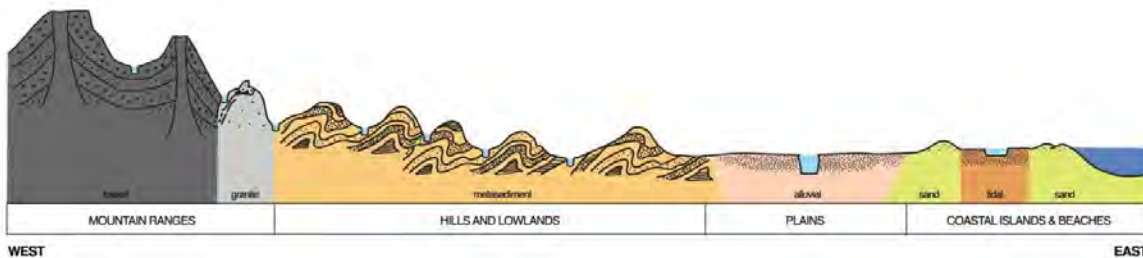
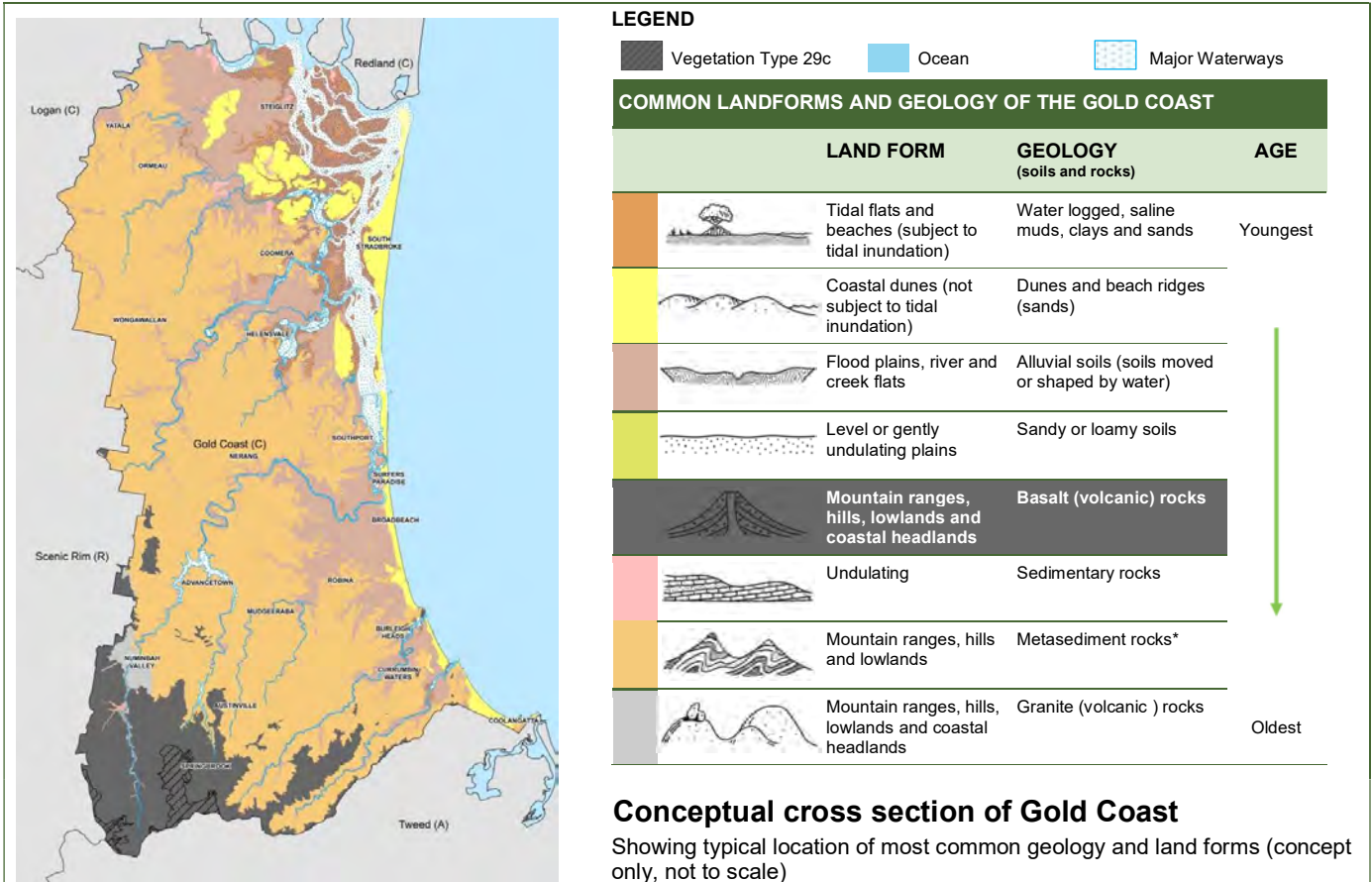


## OCCURRENCE

Native plants occur in vegetation communities, which are consistently associated with a particular soil type, landform (shape of the land, e.g. hills or plains) aspect (position on a slope in relation to the sun) and climate.

Sub-tropical vine forest on tertiary igneous rocks (generally above <600m) is limited to the basalt-derived soils at high elevations (<600m above sea level) and within the Gold Coast occurs only on the Springbrook and Lamington Plateaus. It is common in these localities, forming dense stands of tall rainforest on rich, red soils in high rainfall areas. Its tenure is largely conserved, being well represented in Springbrook and Lamington National Parks. This vegetation type transitions into VT29b (Subtropical Rainforest) generally below <600m) at lower elevations and is replaced by VT30 (Cool Temperate Rainforest) at the most exposed sites, generally above 1100m in elevation.

## Historic distribution of Vegetation Type 29c



### \* Metasediment rocks

The most common underlying geology on the Gold Coast is metasediment rocks. Metasediment rocks are a type of metamorphic rock (rock transformed by heat and pressure). Originally these rocks were sedimentary rocks which were formed on the ocean floor through the deposition and solidification of sediment. These sedimentary rocks were subsequently buried underneath other rocks and subjected to high pressures and temperatures, causing the rock to recrystallize. This recrystallization process is known as metamorphism, hence the term metamorphic rocks. About 300 million years ago these metamorphic rocks were pushed upward by geologic processes, creating much of the ranges, hills and lowlands on the Gold Coast.

## 2017 EXTENT AND CONSERVATION STATUS

### Gold Coast

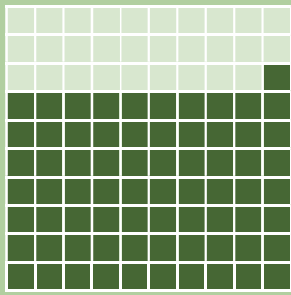
Historically, this vegetation type was the fourth most common type of rainforest on the Gold Coast. The 2017 extent\* of this vegetation type on the Gold Coast was 1,189 hectares.

**1 HECTARE (HA) = 2.46 ACRES ≈ THE SIZE OF AN INTERNATIONAL RUGBY FIELD**

#### EXTENT (ha)

Historic  
1,664ha

2017\*  
1,189 ha  
71% of  
historical  
extent

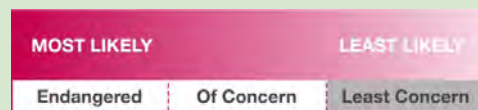


\* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

### Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.8. 5) as being 'Least Concern'.

#### LIKELIHOOD OF BECOMING EXTINCT (in QLD) due to biodiversity loss/degradation



## USEFUL RESOURCES

City of Gold Coast website: Environmental weeds and invasive plants.

Find out more about regional ecosystems at the Queensland Government Regional Ecosystems webpage.

## CREDITS

Content – ngh Environmental and Jason Searle.  
Vegetation Type Photo – Lui Weber ©  
Unless otherwise noted all other photos – Glenn Leiper ©

Version 3, November 2020

## THREATS

VT 29c is sensitive to fire, particularly where it adjoins tall open forest in which eucalypts or Brush Box occur. Invasion by exotic weeds, particularly ground cover species including Mistweed and Crofton Weed (*Ageratina riparia* and *A. adenophora* respectively), is potentially the largest threat to the integrity of this vegetation community especially near edges and clearings.

### About common threats

#### Clearing

Native vegetation is protected by Federal, State and local legislation. However, with increasing population growth in the region, Southeast Queensland is experiencing large amounts of vegetation clearing, particularly in areas designated for urban development. Protecting native vegetation on your property is one of the most beneficial things you can do to protect wildlife and the natural environment.

#### Weeds

Environmental weeds are the second biggest threat to our natural environment after land clearing. Environmental weeds (introduced plants that have naturalised and are invading our bushland) degrade our natural environment by:

- out competing native plant species for available nutrients and light
- taking over and transforming native landscapes often leading to local plant or animal extinctions and loss of biodiversity
- reducing the availability of food and other resources for many native animals whilst sometimes benefiting pest animals
- increasing the risk of destructive wildfire
- often being toxic to people and animals.

#### Fire

Very broadly, vegetation is either adapted to fire or fire sensitive. Fire can become a threat if:

- it extends into vegetation types which should not be burnt e.g. rainforest and creek areas
- the frequency and/or intensity of the fire is too high
- the area burnt is too large.

#### Grazing

The grazing of animals like cattle, horses, goats and feral animals such as deer can cause trampling or loss of diversity of seedlings and compact soil, preventing natural regeneration.

#### Collecting

Unethical and illegal collection of plant specimens in the wild poses a serious threat to some species, particularly orchids, grass trees and epiphytes.

#### Climate change

Changes in temperature and rainfall can have significant effects on our city's vegetation. For example, without consistent rainfall, areas become drier, potentially resulting in higher fire frequency and/or intensity, which some plants and vegetation communities won't be able to tolerate. Plants (and animals) need available space to migrate as conditions change, with high altitude species at the greatest risk as there is nowhere suitable for them to go. Warmer conditions may also provide the right habitat for a greater variety of weeds. As sea levels rise, salt water moves further upstream and vegetation also becomes inundated.